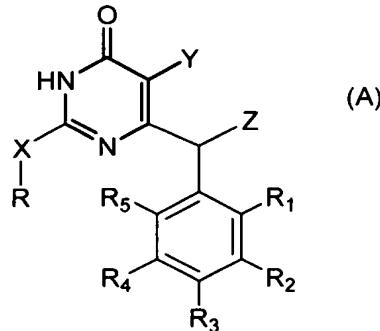


## AMENDMENTS TO THE CLAIMS

This Listing of the Claims will replace all prior versions and listings of claims in the application:

### Listing of Claims

1. (Currently Amended) A compound of the formula:



wherein:

X is —O, —CH<sub>2</sub>, —CH(C<sub>1-4</sub> alkyl), —CH(C<sub>3-6</sub> cycloalkyl), —S, [—]arylene, or [—]arylalkylene;

R is —H, [—]C<sub>1-4</sub> alkyl optionally containing one or more heteroatoms selected from O, S, or N in the chain, [—]C<sub>3-6</sub> cycloalkyl optionally containing one or more heteroatoms selected from O, S, or N in the ring, [—]aryl, arylalkyl, or heterocycle;

Y is —H, [—]C<sub>1-4</sub> alkyl, or [—]C<sub>3-6</sub> cycloalkyl;

Z is [—]C<sub>1-4</sub> alkyl[.] or [—]C<sub>3-6</sub> cycloalkyl;

R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, and R<sub>5</sub> are each independently [is] —H, [—]C<sub>1-4</sub> alkyl, halogen, —NO<sub>2</sub>, —OW (wherein W is H, CH<sub>3</sub>, aryl), or —SW, [(()wherein W is —H, —CH<sub>3</sub>, or [—]aryl[()]);

R<sub>2</sub> is H, C<sub>1-4</sub> alkyl, halogen, NO<sub>2</sub>, OW (wherein W is H, CH<sub>3</sub>, aryl), SW (wherein W is H, CH<sub>3</sub>, aryl);

R<sub>3</sub> is H, C<sub>1-4</sub> alkyl, halogen, NO<sub>2</sub>, OW (wherein W is H, CH<sub>3</sub>, aryl), SW (wherein W is H, CH<sub>3</sub>, aryl);

R<sub>4</sub> is H, C<sub>1-4</sub> alkyl, halogen, NO<sub>2</sub>, OW (wherein W is H, CH<sub>3</sub>, aryl), SW (wherein W is H, CH<sub>3</sub>, aryl);

R<sub>5</sub> is H, C<sub>1-4</sub> alkyl, halogen, NO<sub>2</sub>, OW (wherein W is H, CH<sub>3</sub>, aryl), SW (wherein W is H, CH<sub>3</sub>, aryl); and

R<sub>1</sub> and R<sub>2</sub> are optionally CH=CH-CH=CH;  
or a pharmaceutically acceptable salt thereof.

2. (Canceled).

3. (Currently Amended) [[A]] The compound of having formula A as claimed in claim 1, wherein

X = S	Y = H	Z = CH <sub>3</sub>	R = iPr	R <sub>1</sub> = Cl	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = Cl;
X = S	Y = H	Z = CH <sub>3</sub>	R = Pen	R <sub>1</sub> = Cl	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = Cl;
X = S	Y = H	Z = Et	R = iBu	R <sub>1</sub> = Cl	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = Cl;
X = S	Y = H	Z = Et	R = iPen	R <sub>1</sub> = Cl	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = Cl;
X = S	Y = H	Z = CH <sub>3</sub>	R = iPr	R <sub>1</sub> = F	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = F;
X = S	Y = H	Z = CH <sub>3</sub>	R = iBu	R <sub>1</sub> = F	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = F;
X = S	Y = H	Z = CH <sub>3</sub>	R = nBu	R <sub>1</sub> = F	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = F;
X = S	Y = H	Z = CH <sub>3</sub>	R = sBu	R <sub>1</sub> = F	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = F;
X = S	Y = H	Z = CH <sub>3</sub>	R = cPen	R <sub>1</sub> = F	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = F;
X = S	Y = H	Z = CH <sub>3</sub>	R = cEs	R <sub>1</sub> = F	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = F;
X = S	Y = H	Z = Et	R = iPr	R <sub>1</sub> = F	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = F;
X = S	Y = H	Z = Et	R = cPen	R <sub>1</sub> = F	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = F;
X = S	Y = CH <sub>3</sub>	Z = CH <sub>3</sub>	R = CH <sub>3</sub>	R <sub>1</sub> = F	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = F;
X = S	Y = CH <sub>3</sub>	Z = CH <sub>3</sub>	R = CH <sub>3</sub>	R <sub>1</sub> = F	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = F;
X = S	Y = CH <sub>3</sub>	Z = CH <sub>3</sub>	R = sBu	R <sub>1</sub> = F	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = F;
X = S	Y = CH <sub>3</sub>	Z = CH <sub>3</sub>	R = cPe	R <sub>1</sub> = F	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = F;
X = S	Y = CH <sub>3</sub>	Z = CH <sub>3</sub>	R = iPr	R <sub>1</sub> = F	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = F;
X = S	Y = CH <sub>3</sub>	Z = CH <sub>3</sub>	R = nBu	R <sub>1</sub> = F	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = F; or
X = S	Y = CH <sub>3</sub>	Z = CH <sub>3</sub>	R = iBu	R <sub>1</sub> = F	R <sub>2</sub> = H	R <sub>3</sub> = H	R <sub>4</sub> = H	R <sub>5</sub> = F.

4. (Canceled).

5. (Currently Amended) A pharmaceutically acceptable salt of [[a]] the compound of claim 1.

6. (Currently Amended) A process for the preparation of a compound of having formula A as claimed in claim 1, wherein X = O, comprising the steps of reacting a wherein the proper methyl arylacetylalkylacetate is reacted with O-methylisourea in presence of calcium hydroxide to generate a 2-O-methyl(5-alkyl)-6-benzyl(substituted)uracil; and reacting the 2-O-methyl(5-alkyl)-6-benzyl(substituted)uracil the so obtained 2-O-methyl(5-

~~alkyl)-6-benzyl(substituted)uracils are reacted with a the proper potassium alkoxide according to scheme A.~~

7. (Currently Amended) A process for the preparation of a compound of having formula A as claimed in claim 1, wherein X = S, comprising the steps of reacting a wherein the proper methyl arylacetylalkylacetate is reacted with O-methylisourea in presence of calcium hydroxide to generate a 2-O-methyl(5-alkyl)-6-benzyl(substituted)uracil; and reacting the 2-O-methyl(5-alkyl)-6-benzyl(substituted)uracil the so obtained 2-O-methyl(5-alkyl)-6-benzyl(substituted)uracils are reacted with a the proper potassium alkoxide according to scheme B.

8. (Canceled).

9. (Currently Amended) A method of treating infection by HIV or ~~of treating AIDS, comprising administering to a mammal an effective amount of a compound of as claimed in claim 1 or a pharmaceutically acceptable salt thereof.~~

10. (Canceled).

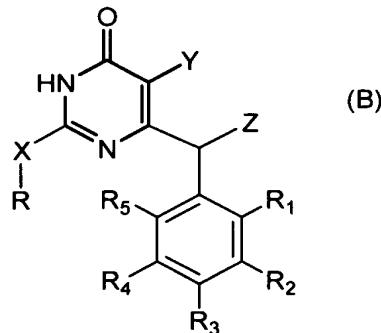
11. (Currently Amended) A pharmaceutical composition comprising a compound of as claimed in claim 1 or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

12. (Currently Amended) A method of treating infection by HIV or ~~of treating AIDS, comprising administering to a mammal an effective amount of a compound of as claimed in claim 1 or a pharmaceutically acceptable salt thereof, in combination with another anti-HIV agent selected from the group consisting of abacavir, zidovudine, BILA 1906, BILA 2185, BM+51.0836: triazoloisoindolinone derivative, BMS 186,318: aminodiol derivative HIV-1 protease inhibitor, d4API, stavudine, efavirenz, HBY097, HEPT, KNI-272, L697,593, L-735,524, L-697,661, L-FDDC, L-FDOC, nevirapine, foscarnet, PMEA, PMPA, Ro 31-8959, RPI-3121, SC-52151, SC-55389A, TIBO R82150, TIBO 82913, TSAO-m3T, U90152, UC[[::]] thiocarboxanilide derivatives[[,]] such as UC-781[[,]] and UC-82, VB 11,328, amprenavir, XM 323, delavirdine, famciclovir, gancyclovir, penciclovir, indinavir, nelfinavir, ritonavir, saquinavir, DDI, DDC, [[D]]~~delavirdine~~,  $\beta$ -LddA,  $\beta$ -L-3'-azido-d5FC, carbovir, acyclovir, interferon, stavudine, [[()]]3'-azido-2',3'-dideoxy-5-methyl-cytidine[[()]],~~

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3'-azido nucleosides,  $\beta$ -D-dioxolane nucleosides such as  $\beta$ -D-dioxolanylguanine (DXG),  $\beta$ -D-dioxolanyl-2,6-diaminopurine (DAPD), and  $\beta$ -D-dioxolanyl-6-chloropurine (ACP), D4T, FTC, 3TC, AZDU, and amprenavir.

13. (Currently Amended) A compound of the formula:



wherein:

X is —O, —CH<sub>2</sub>, —CH(C<sub>1-4</sub> alkyl), —CH(C<sub>3-6</sub> cycloalkyl), —S, [[-]]arylene, or [[-]]arylalkylene;

R is —H, [[-]]C<sub>1-4</sub> alkyl optionally containing one or more heteroatoms selected from O, S or N in the chain, [[-]]C<sub>3-6</sub> cycloalkyl optionally containing one or more heteroatoms selected from O, S or N in the ring, [[-]]aryl, arylalkyl, or heterocycle

Y is —H, [[-]]C<sub>1-4</sub> alkyl, or [[-]]C<sub>3-6</sub> cycloalkyl;

Z is —H, [[-]]C<sub>1-4</sub> alkyl, or [[-]]C<sub>3-6</sub> cycloalkyl;

R<sub>1</sub> is [[-]]C<sub>1-4</sub> alkyl, halogen, —NO<sub>2</sub>, —OW (wherein W is —H, —CH<sub>3</sub>, —aryl), or —SW<sub>1</sub> [[()]]wherein W is —H, —CH<sub>3</sub>, or [[-]]aryl[[D]]];

R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, and R<sub>5</sub> are each independently [[is]] —H, [[-]]C<sub>1-4</sub> alkyl, halogen, —NO<sub>2</sub>, —OW (wherein W is —H, —CH<sub>3</sub>, —aryl), or —SW<sub>1</sub> [[()]]wherein W is —H, —CH<sub>3</sub>, or [[-]]aryl[[D]];

R<sub>3</sub> is —H, C<sub>1-4</sub> alkyl, halogen, NO<sub>2</sub>, OW (wherein W is —H, —CH<sub>3</sub>, —aryl), SW (wherein W is —H, —CH<sub>3</sub>, —aryl);

R<sub>4</sub> is —H, C<sub>1-4</sub> alkyl, halogen, NO<sub>2</sub>, OW (wherein W is —H, —CH<sub>3</sub>, —aryl), SW (wherein W is —H, —CH<sub>3</sub>, —aryl);

R<sub>5</sub> is —H, C<sub>1-4</sub> alkyl, halogen, NO<sub>2</sub>, OW (wherein W is —H, —CH<sub>3</sub>, —aryl), SW (wherein W is —H, —CH<sub>3</sub>, —aryl); and

R<sub>1</sub> and R<sub>2</sub> are optionally CH=CH-CH=CH;  
 or a pharmaceutically acceptable salt thereof.

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14. (Currently Amended) A compound of having formula B as claimed in claim 13<sub>a</sub> wherein

$X = O$   $Y = H$   $Z = H$   $R = sBu$   $R_1 = F$   $R_2 = H$   $R_3 = H$   $R_4 = H$   $R_5 = F$ ; or

$X = O$   $Y = H$   $Z = H$   $R = cPen$   $R_1 = F$   $R_2 = H$   $R_3 = H$   $R_4 = H$   $R_5 = F$ .

15. (Currently Amended) A compound of having formula B as claimed in claim 13<sub>a</sub> wherein

$X = S$	$Y = H$	$Z = H$	$R = sBu$	$R_1 = NO_2$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = H$ ;
$X = S$	$Y = H$	$Z = H$	$R = sBu$	$R_1 = F$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = H$ ;
$X = S$	$Y = H$	$Z = H$	$R = CH_3$	$R_1 = Cl$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = Cl$ ;
$X = S$	$Y = H$	$Z = H$	$R = iPr$	$R_1 = Cl$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = Cl$ ;
$X = S$	$Y = H$	$Z = H$	$R = nBu$	$R_1 = Cl$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = Cl$ ;
$X = S$	$Y = H$	$Z = H$	$R = iBu$	$R_1 = Cl$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = Cl$ ;
$X = S$	$Y = H$	$Z = H$	$R = sBu$	$R_1 = Cl$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = Cl$ ;
$X = S$	$Y = H$	$Z = H$	$R = cPen$	$R_1 = Cl$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = Cl$ ;
$X = S$	$Y = H$	$Z = H$	$R = CH_3$	$R_1 = F$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ;
$X = S$	$Y = H$	$Z = H$	$R = iPr$	$R_1 = F$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ;
$X = S$	$Y = H$	$Z = H$	$R = nBu$	$R_1 = F$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ;
$X = S$	$Y = H$	$Z = H$	$R = iBu$	$R_1 = F$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ;
$X = S$	$Y = H$	$Z = H$	$R = sBu$	$R_1 = F$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ;
$X = S$	$Y = H$	$Z = H$	$R = cPen$	$R_1 = F$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ;
$X = S$	$Y = CH_3$	$Z = H$	$R = sBu$	$R_1 = Cl$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = H$ ;
$X = S$	$Y = CH_3$	$Z = H$	$R = sBu$	$R_1 = F$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = H$ ;
$X = S$	$Y = CH_3$	$Z = H$	$R = sBu$	$R_1 = Cl$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = Cl$ ;
$X = S$	$Y = CH_3$	$Z = H$	$R = CH_3$	$R_1 = F$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ;
$X = S$	$Y = CH_3$	$Z = H$	$R = iPr$	$R_1 = F$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ;
$X = S$	$Y = CH_3$	$Z = H$	$R = nBu$	$R_1 = F$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ;
$X = S$	$Y = CH_3$	$Z = H$	$R = iBu$	$R_1 = F$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ;
$X = S$	$Y = CH_3$	$Z = H$	$R = sBu$	$R_1 = F$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ;
$X = S$	$Y = CH_3$	$Z = H$	$R = cPen$	$R_1 = F$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ;
$X = S$	$Y = iPr$	$Z = H$	$R = iPr$	$R_1 = F$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ;
$X = S$	$Y = H$	$Z = H$	$R = MeSMe$	$R_1 = [[R]]E$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ;
$X = S$	$Y = CH_3$	$Z = H$	$R = MeSMe$	$R_1 = [[R]]E$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ;
$X = S$	$Y = Et$	$Z = H$	$R = MeSMe$	$R_1 = [[R]]E$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ ; or
$X = S$	$Y = iPr$	$Z = H$	$R = MeSMe$	$R_1 = [[R]]E$	$R_2 = H$	$R_3 = H$	$R_4 = H$	$R_5 = F$ .

16. (Previously Presented) A pharmaceutically acceptable salt of a compound of claim 13.

17. (Currently Amended) A process for the preparation of a compound of having formula B as claimed in claim 13, wherein X = O, comprising the steps of reacting a wherein the proper methyl arylacetylalkylacetate is reacted with O-methylisourea in presence of calcium hydroxide to generate a 2-O-methyl(5-alkyl)-6-benzyl(substituted)uracil; and reacting the so obtained 2-O-methyl(5-alkyl)-6-benzyl(substituted)uracil[[s]] are reacted with a the proper potassium alkoxide according to scheme A.

18. (Currently Amended) A process for the preparation of a compound of having formula B as claimed in claim 13, wherein X = S, comprising the steps of reacting a wherein the proper methyl arylacetylalkylacetate is reacted with O-methylisourea in presence of calcium hydroxide to generate a 2-O-methyl(5-alkyl)-6-benzyl(substituted)uracil; and reacting the so obtained 2-O-methyl(5-alkyl)-6-benzyl(substituted)uracil[[s]] are reacted with a the proper potassium alkoxide according to scheme B.

19. (Currently Amended) A method of treating infection by HIV[[,]] or ~~or~~ treating AIDS, comprising administering to a mammal an effective amount of a compound of as claimed in claim 13 or a pharmaceutically acceptable salt thereof.

20. (Currently Amended) A pharmaceutical composition comprising a compound of as claimed in claim 13 or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

21. (Currently Amended) A method of treating infection by HIV or ~~or treating~~ AIDS, comprising administering to a mammal an effective amount of a compound of as claimed in claim 13 or a pharmaceutically acceptable salt thereof, in combination with another anti-HIV agent selected from the group consisting of abacavir, zidovudine, BILA 1906, BILA 2185, BM+51.0836-~~triazoleisoindolinone derivative~~, BMS 186,318-~~aminodiol derivative HIV-1 protease inhibitor~~, d4API, stavudine, efavirenz, HBY097, HEPT, KNI-272, L697,593, L-735,524, L-697,661, L-FDDC, L-FDOC, nevirapine, foscarnet, PMEA, PMPA, Ro 31-8959, RPI-3121, SC-52151, SC-55389A, TIBO R82150, TIBO 82913, TSAO-m3T, U90152, UC[[,]] thiocarboxanilide derivatives[[,]] such as UC-781[[,]] or UC-82, VB 11,328, amprenavir, XM 323, delavirdine, famciclovir, gancyclovir, penciclovir, indinavir,

nelfinavir, ritonavir, saquinavir, DDI, DDC, Delavirdine,  $\beta$ -LddA,  $\beta$ -L-3'-azido-d5FC, carbovir, acyclovir, interferon, stavudine, [[()3'-azido-2',3'-dideoxy-5-methyl-cytidine[()]], 3'-azido nucleosides,  $\beta$ -D-dioxolane nucleosides such as  $\beta$ -D-dioxolanylguanine (DXG),  $\beta$ -D-dioxolanyl-2,6-diaminopurine (DAPD), and  $\beta$ -D-dioxolanyl-6-chloropurine (ACP), D4T, FTC, 3TC, AZDU, and amprenavir.

22. (New) The compound of claim 1, wherein R<sub>1</sub> is halo.
23. (New) The compound of claim 1, wherein R<sub>5</sub> is halo.
24. (New) The compound of claim 1, wherein R<sub>1</sub> and R<sub>5</sub> are independently halo.
25. (New) The compound of claim 1, wherein R<sub>1</sub> and R<sub>5</sub> are independently fluoro or chloro.
26. (New) The compound of claim 13, wherein R<sub>1</sub> is halo.
27. (New) The compound of claim 13, wherein R<sub>5</sub> is halo.
28. (New) The compound of claim 13, wherein R<sub>1</sub> and R<sub>5</sub> are independently halo.
29. (New) The compound of claim 13, wherein R<sub>1</sub> and R<sub>5</sub> are independently fluoro or chloro.